

A new species of *Tanycarpa* Foerster from England (Hymenoptera, Braconidae, Alysiinae)

by

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ABSTRACT

A new species of *Tanycarpa* Foerster, 1862, *punctata* sp. nov., is described. It is a parasite of Drosophilidae-larvae. A revised key to the genus *Tanycarpa* is included and the differences between *punctata* and *T. mitis* Stelfox, 1941, are discussed.

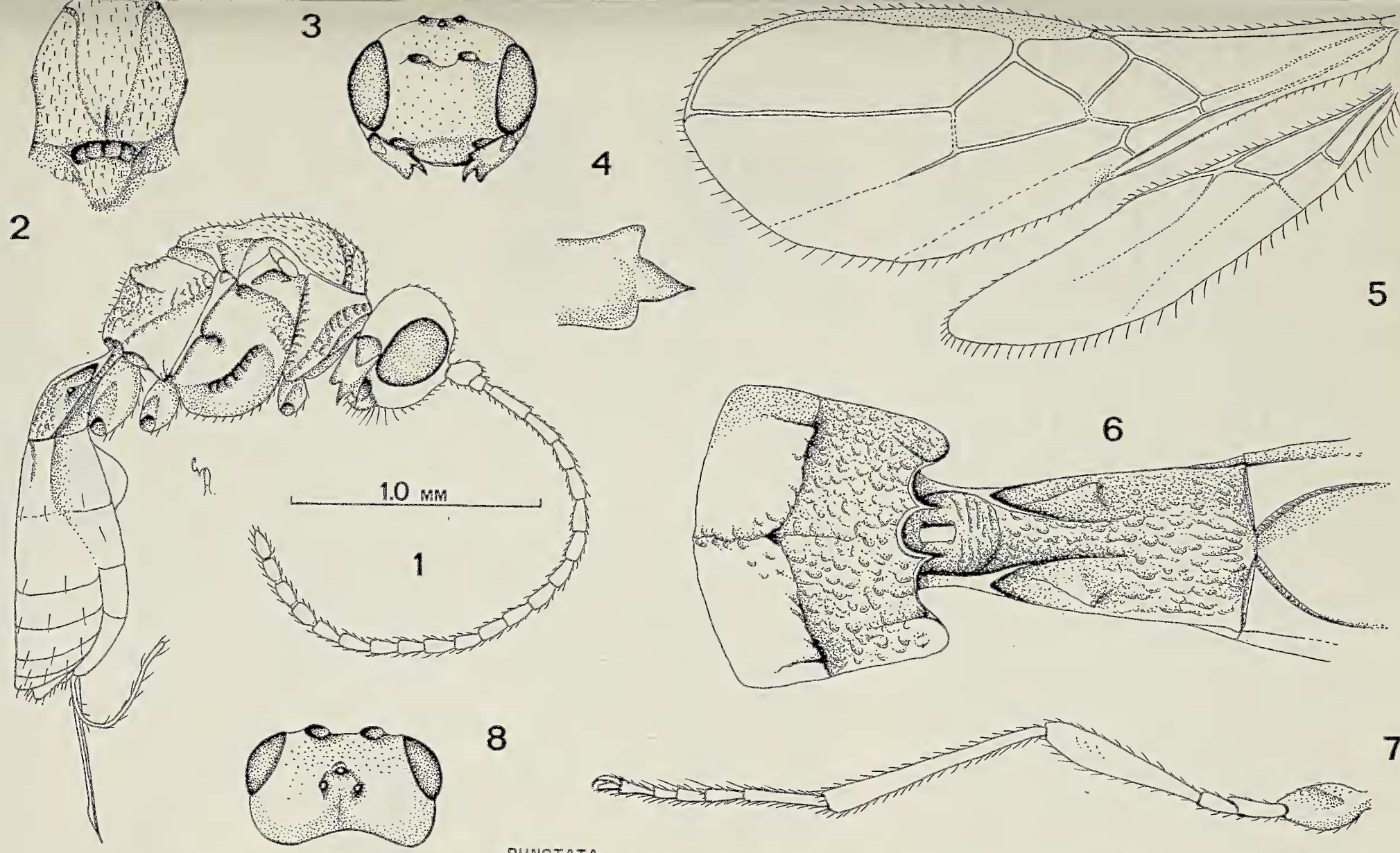
The Palearctic genus *Tanycarpa* Foerster, 1862, contains only a few species which have been keyed by Fischer (1971: 144). The species described below was first obtained by Prof. G. C. Varley in the garden of his Oxford home together with *Asobara tabida* (Nees), a common parasite of the Drosophilidae and belonging to the same tribe, Alysiini. Also common in the same garden at the same time was *Pseudeucoila* (*P.*) *bochei* Weld, 1944 (Cynipidae, Eucoilinae).

Its association with the Drosophilidae is interesting, since the little biological information available for the other species of this genus indicates relations with the Agromyzidae and Mycetophilidae. So far two females have been reared from *Drosophila melanogaster*, however since the predominant species found in the jars from which they were reared was *Drosophila subobscura*, it is perhaps more likely that this is the more normal host (Baker, in litt.).

Its biology is currently being studied by Mr. R. Baker at the University of Oxford for which a proper identification is needed. Therefore the species was compared with the holotype of *T. mitis* Stelfox, 1941, because of its resemblance to the new species. This comparison resulted in the following key:

Key to the species of *Tanycarpa*

1. Occipital tubercles absent 2
- Occipital tubercles present; (pterostigma subtriangular, body largely brown in typical form) *bicolor* (Nees, 1814) (? = *ancilla* (Haliday, 1838) which has temples somewhat narrowed behind and metasoma blackish apically)
2. Temples whitish and densely setose apically; dorsal carinae of 1st metasomal tergite united; dorsal surface of propodeum evenly and finely rugose, without distinct carinae *amplipennis* (Foerster, 1862)
- Temples scarcely setose or bare; dorsal carinae of 1st tergite remain separated (fig. 6); dorsal surface of propodeum mainly smooth, at least costulae distinct (fig. 6) 3
3. Antennal segments of ♀ 21—22 and relatively stout (fig 1); lateral lobes of mesoscutum densely covered with short setae (at least dorsally) and surface finely punctulate by the pits of the setae (fig. 2) *punctata* sp. nov.
- Antennal segments of ♀ 24—33 and more slender (fig. 9); lateral lobes of mesoscutum almost bare, smooth 4
4. Antennal segments of ♀ 30—33; r 1 leaving pterostigma submedially (if medial cf. the genus *Alysia* Latreille) 5
- Antennal segments of ♀ 24—27; r 1 leaving pterostigma from basal 0.3 (fig. 11) *mitis* Stelfox, 1941
5. Width of head 1.1 times width of mesoscutum; dorsal length of eye 1.5 times temple *gracilicornis* (Nees, 1814)
- Width of head 1.4 times width of mesoscutum; dorsal length of eye subequal to temple *rufinotata* (Haliday, 1838)



PUNCTATA

Figs. 1—8, *Tanycarpa punctata* sp. nov., holotype. 1, habitus, lateral aspect; 2, mesonotum, dorsal aspect; 3, head, frontal aspect; 4, mandible, frontal aspect; 5, wings; 6, propodeum, 1st and 2nd metasomal tergites, dorsal aspect; 7, hind leg, lateral aspect; 8, head, dorsal aspect. Enlargement: 1, 5, 7: as indicated by scale line; 2, 3, 8: 1.2 × scale line; 6: 2.5 × scale line; 4: 3.2 × scale line.

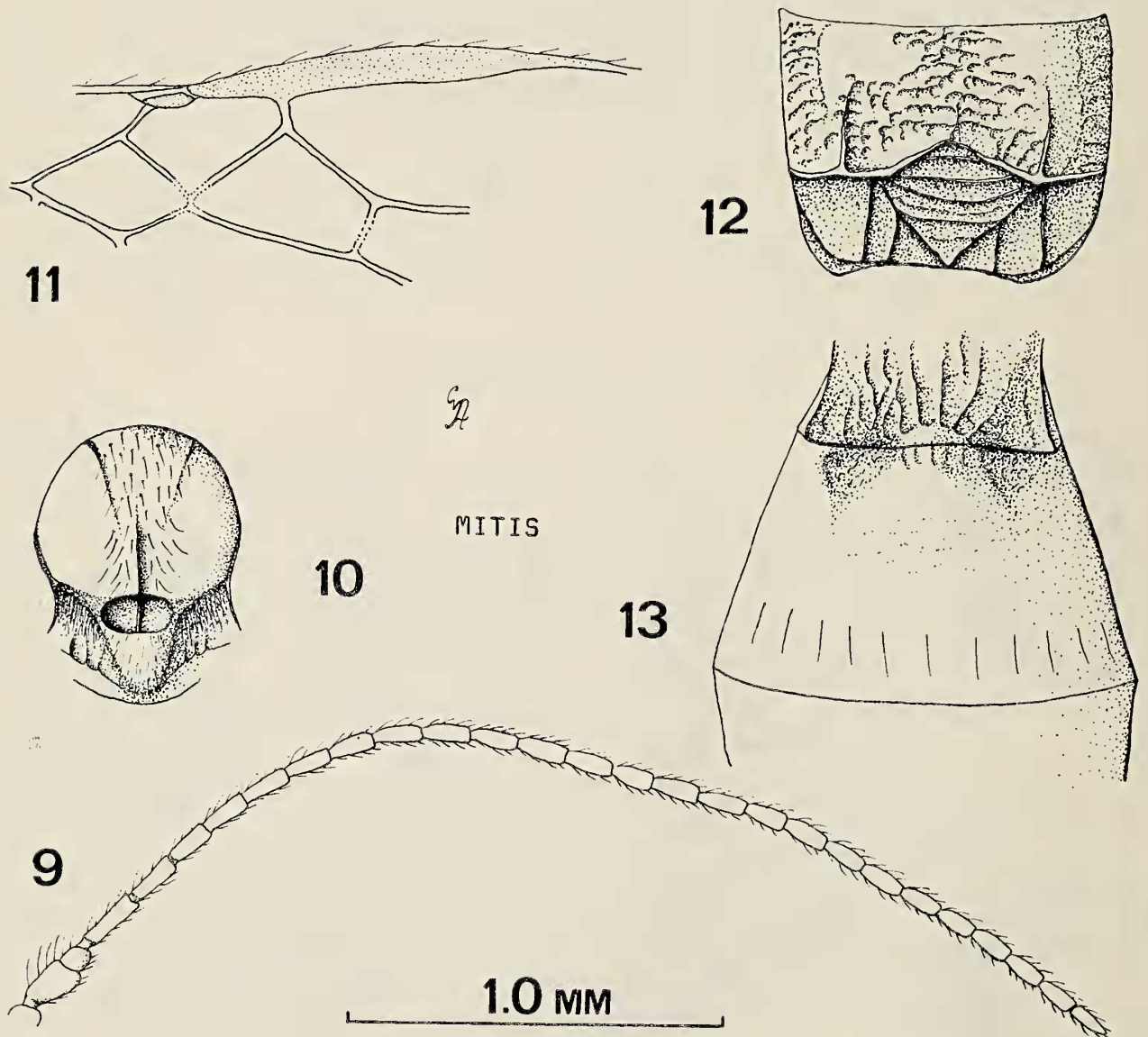
Tanycarpa punctata sp. nov.

Figs. 1—8

Holotype, ♀, length of body and of fore wing both 2.8 mm.

HEAD. — Antennal segments 22 (as 3 ♀ paratypes; 4 ♀ paratypes have 21 and 1 ♂ paratype has 25), length of 3rd segment 1.4 times 4th segment, length of 3rd and 4th segments 4.6 and 3.3 times their width, respectively, with rather long setae, length of penultimate segments 2.3 times their width; maxillary palpus slender, somewhat shorter than height of head; eye bare; dorsal length of eye 1.3 times temple; temple roundly narrowed behind (fig. 8); POL: Ø ocellus: 00L = 5 : 2 : 7; frontal suture absent; epicranial suture indistinct (fig. 8); frons almost flat, finely punctulate; occipital tubercles completely absent; face somewhat convex and superficially punctulate; anterior tentorial pits medium-sized, deep; clypeus convex, punctulate; hypostomal suture deep; apical margin of clypeus straight; width of head 1.7 times its length (fig. 8) and 1.3 times width of mesoscutum; length of mandible 1.5 times its width, its 1st tooth rather rounded, somewhat protruding dorsad, its 2nd tooth large and sharp (fig. 4) and 3rd tooth rounded, lobe-shaped (in paratypes often sharper).

MESOSOMA. — Length of mesosoma 1.3 times its height; sides of pronotum smooth except for some crenulae in medial depression; epicnemial suture almost smooth, except for some small and shallow depressions ventrally; precoxal suture medially



Figs. 9—13, *Tanycarpa mitis* Stelfox, holotype. 9, antenna, lateral aspect; 10, mesonotum, dorsal aspect; 11, part of fore wing; 12, propodeum, dorsal aspect; 13, 2nd metasomal tergite, dorsal aspect. Enlargement: 9, 11: as indicated by scale line; 10: 1.2 × scale line; 12, 13: 2.5 × scale line.

distinctly crenulate (fig. 1); pleural suture almost smooth, narrow; episternal scrobe deep; metapleural flange large, sharp; metapleura smooth; notauli distinctly crenulate basally, obliterated dorsad; mesoscutal lobes moderately convex, superficially punctulate and setose; scutellar suture deep and wide with 3 rather weakly developed longitudinal carinae; scutellum convex, punctulate; lateral carina of scutellum completely absent; sides of scutellum densely setose; medio-dorsal depression deep, groove-shaped and medium-sized (shorter than in *mitis*); dorsal surface of propodeum smooth except for an irregular medial carina; costulae protruding dorsolaterally and interrupted submedially (fig. 6); posterior surface of propodeum finely rugose; spiracle small.

WINGS. — Metacarp not distinctly surpasses radial cell (fig. 5); pterostigma narrow-elliptical; r 3 straight; nervulus small; d 1 : d 2 = 1 : 13; brachial cell closed; r 1 : r 2 : r 3 : cuqu 1 : cuqu 2 = 5 : 31 : 103 : 34 : 15.

LEGS. — Hind coxa superficially punctate; femur and tibia of hind leg almost smooth; tarsal claws slender, simple and rather large; femur, tibia and basitarsus of hind leg 5.0, 8.6 and 6.0 times their width, respectively.

METASOMA. — Length of 1st tergite 1.4 times its apical width, its spiracles subdorsal, protruding (fig. 6), its dorsal carinae weakly developed, distinct in basal 0.3, its surface superficially reticulato-rugose, more or less smooth laterally, its laterope medium-sized and rather narrow, its dorsope large and deep; basally 2nd tergite with 2 diverging, deep grooves (fig. 6), the rest smooth and sparsely setose; hypopygium medium-sized.

COLOUR. — Brownish black; antenna basally, pterostigma, tegulae and metasoma apicad, brown; palpi whitish yellow; legs, clypeus largely and mandible, yellow. Holotype in Hope Department of Zoology (Entomology), Oxford: "O.V. 1972 11 p. bred BO 161308 (= Mr. M. H. Jackson, Wallcroft, Rake Lane, Little Stanley, nr. Liverpool CH2 4HS, 1.VII.1972)", "?*Tanycarpa* sp., G. E. J. Nixon, det. 1972", "*Tanycarpa mitis* Stelfox or near, R. D. Eady, det. 1972". Paratypes: same data as holotype, 6 females and 1 male (allotype); 4 females and 2 males from banana-trap, Apsley Rd., R. Baker, 15.VIII.1974 (= Oxford, reared mainly from *D. subobscura*); id. 1 female from 14.VIII.1974; three partly preserved specimens on one pin (of which at least one is a female) "em. 20.VII.70, Pot. X from *D. subobscura*" (= Apsley Road, Oxford, pot X was exposed for two days — subsequently producing 9 *Drosophila melanogaster*, 65 *D. subobscura* and 1 *D. busckii*). Paratypes in the collection of the Hope Department of Zoology (Entomology), Oxford (11); author's collection (4); British Museum (Natural History) (1), London and U.S. National Museum, Washington (1).

The male is essentially like the female, but lateral lobes of mesoscutum usually less densely setose.

Note. — *T. punctata* differs from *mitis* by the relatively short mediodorsal groove of the mesoscutum (fig. 2 versus fig. 10), by the lateral lobes of mesoscutum covered with short setae (fig. 2) which are almost smooth in *mitis* (fig. 10), by shorter and less slender antenna (fig. 1 versus fig. 9), by the costulae of the propodeum indistinctly developed submedially (and not lamelliform as in *mitis*) and medial carina present (fig. 6 versus fig. 12), by the longer grooves of 2nd tergite (fig. 6 versus fig. 13), by somewhat shorter r 1 (r 1 : r 2 is 1 : 6 in *punctata* and 1 : 4 in *mitis* (fig. 5 versus fig. 11) and by the less setose ovipositor sheath.

ACKNOWLEDGEMENTS

I am grateful to Dr. P. M. Marsh (Washington) for the loan of the holotype of *mitis* and to Mr. R. Baker (Oxford) for the gift of some paratypes and for correcting the manuscript.

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Dit kloeke boekwerk, proefschrift ter verkrijging van de graad van Ph. D., is een monografie over de Macrolepidoptera van de Fiji-eilanden en het ten noorden daarvan gelegen Rotuma. Een zeer groot deel van het materiaal werd door de auteur zelf verzameld, waarbij voor nachtvangsten uiteraard gebruik gemaakt werd van vallen. Deze leverden vangsten op zoals wij ons hier nauwelijks kunnen voorstellen.

De eerste 100 pagina's zijn gewijd aan diverse algemene onderwerpen, het ontstaan en de natuurlijke gesteldheid van de eilanden (met fraaie landschapsfoto's), de wijze waarop de enorme nachtvangsten verwerkt werden etc. Daarop volgt de systematische behandeling van de 400 soorten die nu van deze eilanden bekend zijn. Hoe mager de kennis van de daar voorkomende macro's was, blijkt uit het feit, dat in deze publicatie niet minder dan 72 nieuwe soorten beschreven worden (plus twee nieuwe genera en tien ondersoorten). Alle afbeeldingen zijn van uitstekende kwaliteit, ook de ongekleurde foto's van de vlinders. Het werk is in off-set uitgevoerd, wat de verrassend lage prijs verklaart.

De dissertatie is niet zo maar een knappe wetenschappelijke verhandeling, doch ze is een standaardwerk geworden over de Macrolepidoptera van de eilandengroep. — Lpk.

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